Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended). A vector for delivery of a virus to a target cell within a host animal, comprising a cell-targeting ligand non-covalently bound directly to said virus, wherein said ligand binds to a receptor on said target cell.

Claim 2. (Original) The vector of claim 1 wherein said virus and said ligand are not naturally associated with each other.

Claim 3. (Original) The vector of claim 1, wherein said virus is comprised of a therapeutic nucleic acid.

Claim 4. (Original) The vector of claim 1, wherein said virus is comprised of a nucleic acid that encodes a therapeutic peptide or protein.

Claim 5. (Original) The vector of claim 1, wherein said virus is comprised of a nucleic acid that encodes wild-type p53.

Claim 6. (Original) The vector of claim 1, wherein said virus is a retrovirus or an adenovirus.

Claim 7. (Original) The vector of claim 1, wherein said virus is selected from the group consisting of adeno-associated

virus, herpes simplex virus, cytomegalovirus, vaccinia virus, fowlpox virus, canarypox virus and Sindbis virus.

Claim 8. (Original) The vector of claim 1, wherein said virus is a chimeric virus, a hybrid virus, or a recombinant virus.

Claim 9. (Original) The vector of claim 1, wherein said cell-targeting ligand is selected from the group consisting of proteins, peptides, hormones, antibodies and antibody fragments.

Claim 10. (Original) The vector of claim 1, wherein said cell-targeting ligand is a native protein or a recombinant protein.

Claim 11. (Original) The vector of claim 1, wherein said cell-targeting ligand is selected from the group consisting of insulin, toxins, EGF, VEGF, FGF, IGF, heregulin, a viral protein, a bacterial protein, estrogen and progesterone.

Claim 12. (Original) The vector of claim 1, wherein said cell-targeting ligand is transferrin.

Claim 13. (Original) The vector of claim 1, wherein said cell-targeting ligand and said virus are present at a ratio in the range of 100 to 1,000,000 ligand molecules per virion.

Claim 14. (Original) The vector of claim 1, wherein said cell-targeting ligand and said virus are present at a ratio in the range of 6,700 to 400,000 ligand molecules per virion.

Claim 15. (Original) The vector of claim 1, wherein said cell-targeting ligand and said virus are present at a ratio in the range of 1 µg to 10 mg of said ligand per 10^{10} virion.

Claim 16. (Original) The vector of claim 1, wherein said cell-targeting ligand and said virus are present at a ratio in the range of 10 µg to 600 µg of said ligand per 10^{10} virion.

Claim 17 (Previously presented). A method for preparing a vector for the systemic delivery of a virus to a target cell, said vector comprising a cell-targeting ligand non-covalently bound directly to said virus, comprising mixing said cell-targeting ligand with said virus in an aqueous medium, whereby said ligand non-covalently binds directly to said virus.

Claim 18. (Original) The method of claim 17, wherein said aqueous solution includes one or more of a buffering agent, an osmolarity adjusting agent, or an antibiotic.

Claim 19. (Currently amended). A method for providing a nucleic acid therapeutic agent to an animal suffering from head and neck cancer, bladder cancer, breast cancer, thyroid cancer, ovarian cancer, prostate cancer, melanoma or lymphoma, comprising administering to said animal a therapeutically effective amount of a vector for delivery of a virus comprising said therapeutic agent to ~~a target cell~~ cells of one of said cancers within said animal, said vector comprising a cell-targeting ligand non-

covalently bound directly to said virus and said ~~target cell~~ cells containing a receptor for said ligand.

Claim 20. (Original) The method of claim 19, wherein said animal is human.

Claim 21. (Original) The method of claim 19 wherein said therapeutic agent is administered systemically.

Claim 22. (Original) The method of claim 19 wherein said therapeutic agent is administered parenterally.

Claim 23. (Original) The method of claim 19 wherein said therapeutic agent is administered intravenously or intra-arterially.

Claim 24. (Original) The method of claim 19 wherein said therapeutic agent is administered intratumorally.

Claim 25. (Original) The method of claim 19 wherein said vector encodes wild-type p53.

Claim 26. (Original) The method of claim 19 wherein said cell-targeting ligand is transferrin.

Claim 27. (Original) The method of claim 19 wherein said therapeutic agent is administered to an animal receiving chemotherapy in addition to said therapeutic agent.

Claim 28. (Original) The method of claim 19 wherein said therapeutic agent is administered to an animal receiving radiation treatment in addition to said therapeutic agent.

Claim 29. (Cancelled)

Claim 30. (Currently amended). The method of claim 19, wherein said virus is comprised of a nucleic acid encoding wild-type p53, ~~further wherein~~ said cell-targeting ligand is transferrin and said therapeutic agent is administered systemically.

Claim 31. (Original) The method of claim 30, wherein said therapeutic agent is administered to an animal receiving chemotherapy in addition to said therapeutic agent.

Claim 32. (Original) The method of claim 30, wherein said therapeutic agent is administered to an animal receiving radiation treatment in addition to said therapeutic agent.

Claim 33. (New) The vector of claim 1, wherein said virus is an adenovirus comprising a therapeutic nucleic acid and said ligand is transferrin or EGF.

Claim 34. (New) The vector of claim 1, wherein said virus is an adenovirus and said ligand as an antibody fragment.

Claim 35. (New) The vector of claim 33, wherein said adenovirus comprises a nucleic acid that encodes wild-type p53.

Claim 36. (New) The vector of claim 34, wherein said adenovirus comprises a nucleic acid that encodes wild-type p53.

Claim 37. (New) The vector of claim 1, wherein said virus is a retrovirus or herpes simplex virus comprising a therapeutic nucleic acid and said ligand is transferrin.

Claim 38. (New) The method of claim 19, wherein said virus is an adenovirus, a retrovirus or a herpes simplex virus.

Claim 39. (New) The method of claim 30, wherein said virus is an adenovirus.